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Project	Widening of Major Sandeep Unnikrishnan Road from Doddaballapura Road to Yelahanka Bus stand road towards BWSSB Water tank side in ward No.04
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Shri Uday shetty

Field Dry Density test by Sand Replacement Method (As per IS 2720 (Part 28))

Location:				Date:	15/09/2016	
Representing chainage						
Layer no. or level	WMM II layer					
Depth of hole						
Field density:	1	2				
Wt. of wet material from hole (Ww) gms.	5020	5178				
Wt. of sand+cylinder before pouring (w1) gms.	14000	14000				
Wt. of sand+cylinder after pouring (w2) gms.	10408	10267				
Wt. of sand in cone (w3) gms.	870	870				
Wt. of sand in hole (w4)=(w1-w2-w3) gms.	2722	2863				
Bulk density of sand (γs)gm/cc	1.32	1.32				
Bulk density of material(i.e. wt. of the wet material) (γb)=(Ww/w4*(γs))gm/cc	2.43	2.39				
Moisture meter reading(moisture content)	7.00	6.00				
Result						
FDD(Wt.of the dry material)=(100γb/100+mc)gm/cc	2.28	2.25				
MDD	2.30	2.30				
OMC	6.30%	6.30%				
% compaction obtained	98.92	97.92				
% compaction required	98%	98%				

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Project Division
Yelahanka Zone
Bangalore

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike				
Project	Widening of Major Sandeep Unnikrishnan Road from Doddaballapura Road to Yelahanka Bus stand road towards BWSSB Water tank side in ward No.04				
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore				
Contractor	Shri Uday shetty				
Total Weight:	10000	gms			

SIEVE ANALYSIS

Type of Material	20 mm down size		Proposed Use	Drain	
Sample Location			Date of Sampling	18/08/2016	
			Date of Testing	18/08/2016	
IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	286	286	2.86	97.14	95 - 100
10.00 mm	4795	5081	50.81	49.19	25 - 55
4.75 mm	4596	9677	96.77	3.23	0 - 10
Pan	323	10000			
Remarks :	Satisfactory / Not Satisfactory				

Contractor's Representative

Consultant's Representative

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Test report on Compressive strength of concrete cubes

Project	Widening of Major Sandeep Unnikrishnan Road from Doddaballapura Road to Yelahanka Bus stand road towards BWSSB Water tank side in ward No.04
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Shri Uday Shetty
Location:	RCC Drain
Grade of concrete:	M20
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	23/08/2016	29/08/2016	7 days	8.212	22500	326	14.49	14.96
2	23/08/2016	29/08/2016	7 days	8.308	22500	349	15.51	
3	23/08/2016	29/08/2016	7 days	8.191	22500	335	14.89	

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Name of Work : Widening of Major Sandeep Unnikrishnan Road from Doddaballapura Road to Yelahanka Bus stand road towards BWSSB Water tank side in ward No.04

Client : BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant : M/s Tejus Consultants

Contractor : Shri Uday Shetty

Date of Testing : 6/9/2016

Type of Mix : GSB

Sample I/D : GSB2

GRADATION FOR GSB
(As per MORT&H 400-2,Grading-1)

Sample Location: At plant

Date of Sampling: 6/9/2016

Date of testing: 6/9/2016

Type of material & Purpose: GSB

Oven Dry Wt.(gms): 15000.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
75	0	0	0.00	100.00	100.00
26.5	6247	6247	41.65	58.35	55-75
4.75	5447	11694	77.96	22.04	10-30
0.075	2568	14262	95.08	4.92	0-10
Pan	738.0				
Total	15000.0				

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Name of Work : Widening of Major Sandeep Unnikrishnan Road from Doddabellapura Road to Yelahanka Bus stand road towards BWSSB Water tank side in ward No.04

Client : BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant : M/s Tejus Consultants

Contractor : Shri Uday Shetty

Date of Testing : 6/9/2016

Type of Mix : GSB

Sample I/D : GSB5

GRADATION FOR GSB
(As per MORT&H 400-2,Grading-1)

Sample Location: At plant

Date of Sampling: 6/9/2016

Date of testing: 6/9/2016

Type of material & Purpose: GSB

Oven Dry Wt.(gms): 20000.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
75	0	0	0.00	100.00	100.00
26.5	7885	7885	39.43	60.58	55-75
4.75	8865	16750	83.75	16.25	10-30
0.075	2651	19401	97.01	3.00	0-10
Pan	599.0				
Total	20000.0				

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Project	Widening of Major Sandeep Unnikrishnan Road from Doddaballapura Road to Yelahanka Bus stand road towards BWSSB Water tank side in ward No.04
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Shri Uday Shetty

Field Dry Density test by Sand Replacement Method (As per IS 2720 (Part 28))

Location.	Date:	7/9/2016	
Representing chainage			
Layer no. or level	GSB layer		
Depth of hole:200mm			
Field density:	1	2	
Wt. of wet material from hole (Ww) gms.	5390	5480	
Wt. of sand+cylinder before pouring (w1) gms.	14000	14000	
Wt. of sand+cylinder after pouring (w2) gms.	10130	10120	
Wt. of sand in cone (w3) gms.	870	870	
Wt. of sand in hole (w4)=(w1-w2-w3) gms.	3000	3010	
Bulk density of sand (γs)gm/cc	1.32	1.32	
Bulk density of material(i.e. wt. of the wet material) (γb)=(Ww/w4*(γs))gm/cc	2.37	2.40	
Moisture meter reading(moisture content)	9.00	9.50	
Result			
FDD(Wt.of the dry material)=(100γb/100+mc)gm/cc	2.18	2.19	
MDD	2.22	2.22	
OMC	9.50%	9.50%	
% compaction obtained	98.01	98.86	
% compaction required	98%	98%	

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Project	Widening of Major Sandeep Unnikrishnan Road from Doddaballapura Road to Yelahanka Bus stand road towards BWSSB Water tank side in ward No.04
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	shri uday shetty

Field Dry Density test by Sand Replacement Method (As per IS 2720 (Part 28))

Location:				Date:	9/9/2016	
Representing chainage						
Layer no. or level	WMM I layer					
Depth of hole						
Field density:	1	2				
Wt. of wet material from hole (Ww) gms.	6255	6632				
Wt. of sand+cylinder before pouring (w1) gms.	14000	14000				
Wt. of sand+cylinder after pouring (w2) gms.	9744	9508				
Wt. of sand in cone (w3) gms.	870	870				
Wt. of sand in hole (w4)=(w1-w2-w3) gms.	3376	3612				
Bulk density of sand (γs)gm/cc	1.32	1.32				
Bulk density of material(i.e. wt. of the wet material) (γb)=(Ww/w4*(γs))gm/cc	2.45	2.42				
Moisture meter reading(moisture content)	8.00	6.50				
Result						
FDD(Wt.of the dry material)=(100γb/100+mc)gm/cc	2.26	2.28				
MDD	2.30	2.30				
OMC	6.30%	6.30%				
% compaction obtained	98.46	98.94				
% compaction required	98%	98%				

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Name of Work : Widening of Major Sandeep Unnikrishnan Road from Doddaballapura Road to Yelahanka Bus stand road towards BWSSB Water tank side in ward No.04

Client :

BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant : M/s Tejus Consultants

Contractor : Shri Uday shetty

Date of Testing : 13/09/2016

Type of Mix : WMM

Sample I/D : WMM3

GRADATION FOR WMM
(As per MORT&H 400-11)

Sample Location: At plant — Date of Sampling:

Type of material & Purpose: WMM — Date of testing:

Oven Dry Wt.(gms): 10000.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
53	0	0	0.00	100.00	100.00
45	126	126	1.26	98.74	95-100
22.4	2347	2473	24.73	75.27	60-80
11.2	2683	5156	51.56	48.44	40-60
4.75	1355.0	6511	65.11	34.89	25-40
2.36	852.0	7363	73.63	26.37	15-30
0.6	535.0	7898	78.98	21.02	8.0-22.0
0.075	1569.0	9467	94.67	5.33	0-8
Pan	533.0				
Total	10000.0				

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